

Sheet 1 of 31

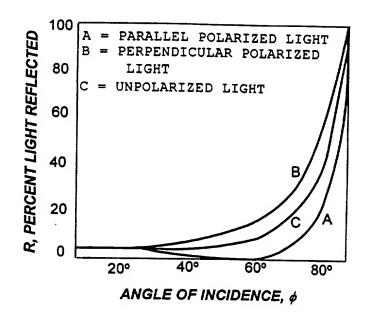
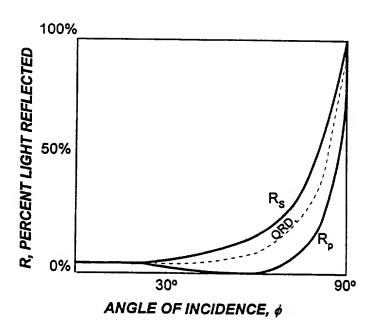


FIGURE 4A



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FIGURE 4B

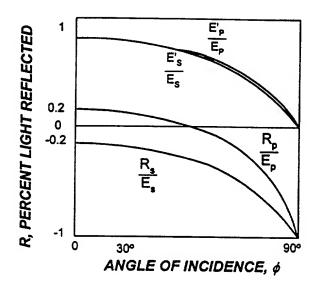


FIGURE 4C

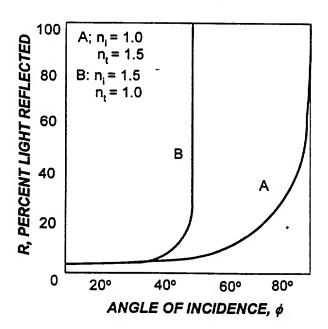


FIGURE 5A

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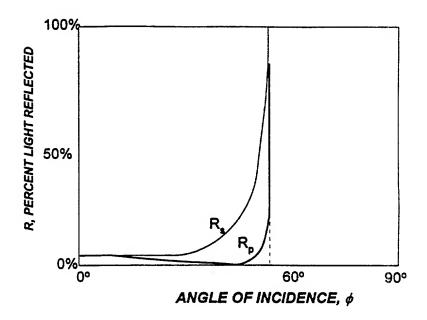


FIGURE 5B

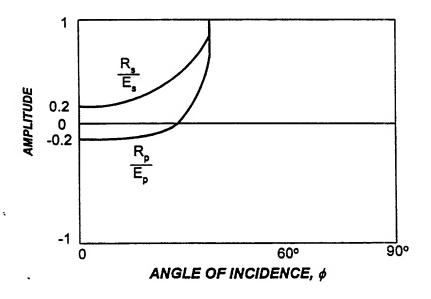


FIGURE 5C

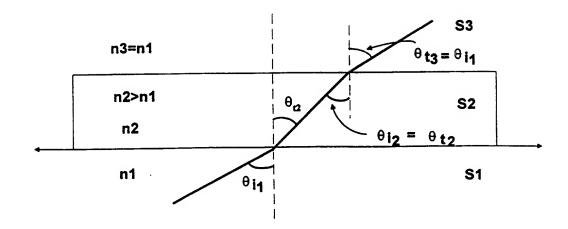


FIGURE 6

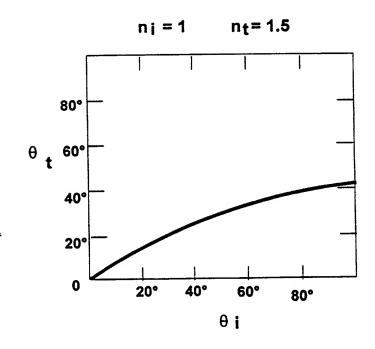


FIGURE 7

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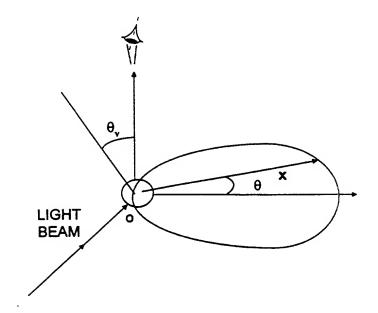


FIGURE 8

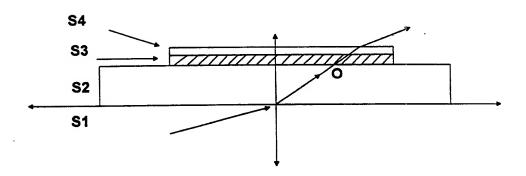
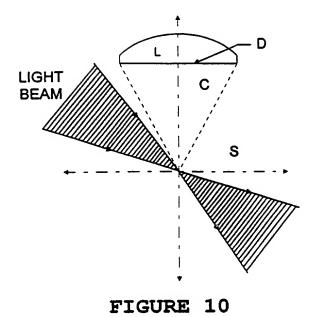


FIGURE 9

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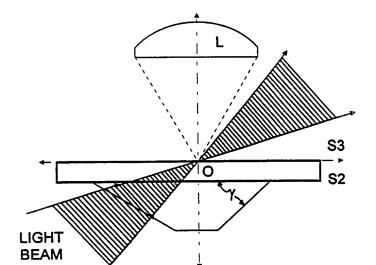


FIGURE 11

**S**1

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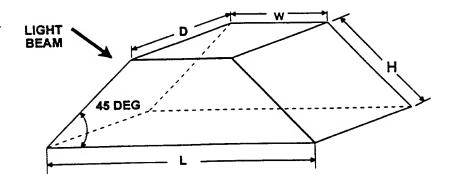


FIGURE 12A

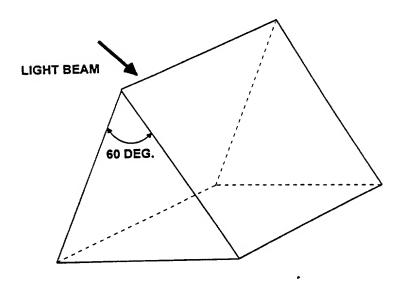


FIGURE 12B

Sheet 8231

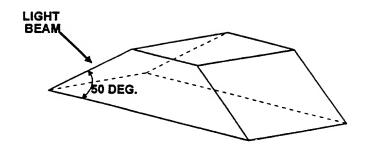


FIGURE 12C

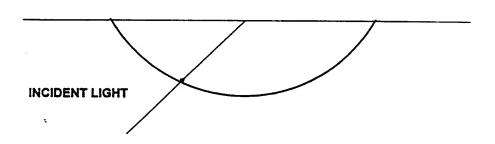


FIGURE 12D

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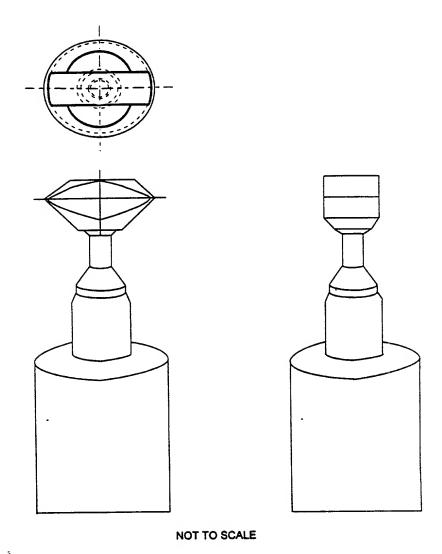
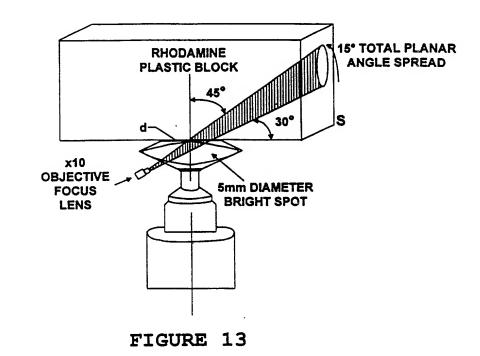


FIGURE 12E

Sheet 10 831



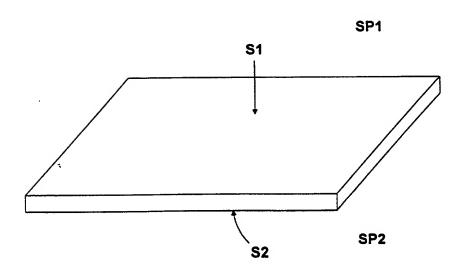


FIGURE 14

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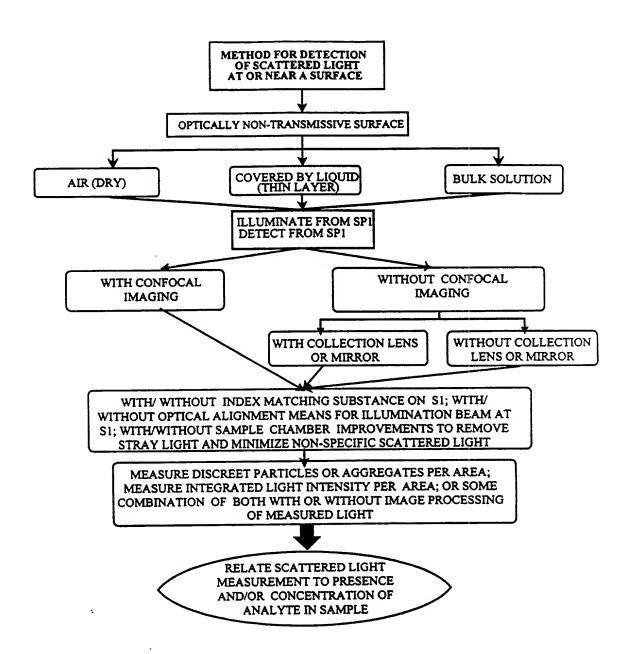


FIGURE 15A

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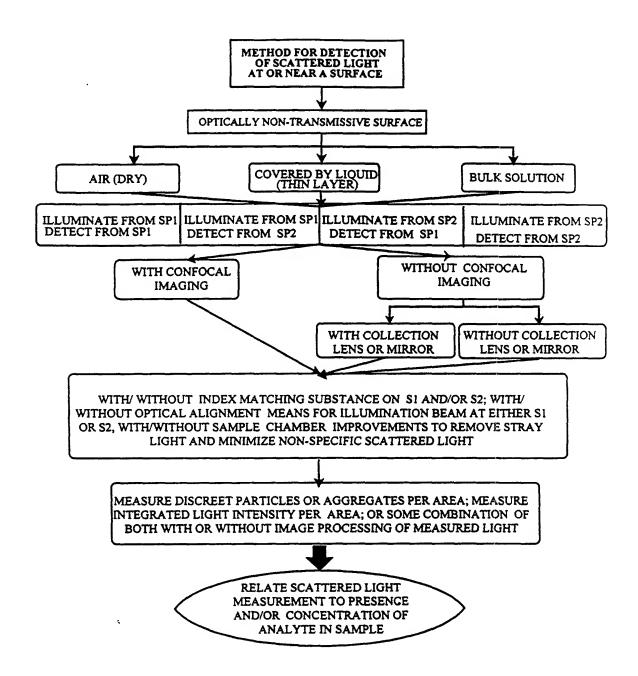


FIGURE 15B

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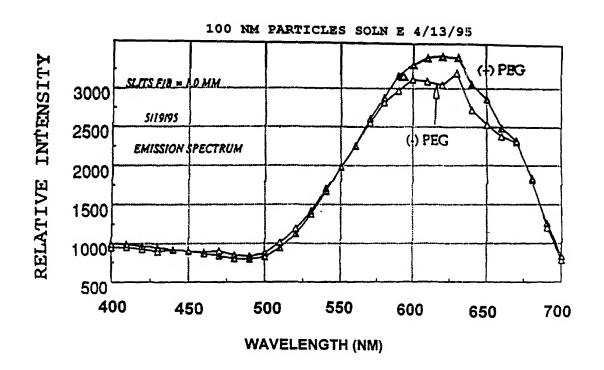


FIGURE 16

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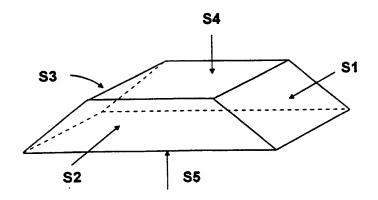


FIGURE 17

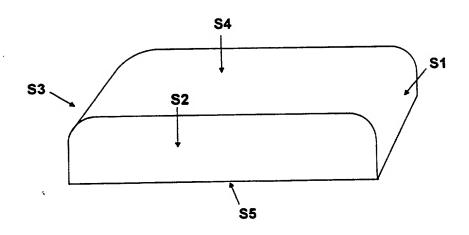
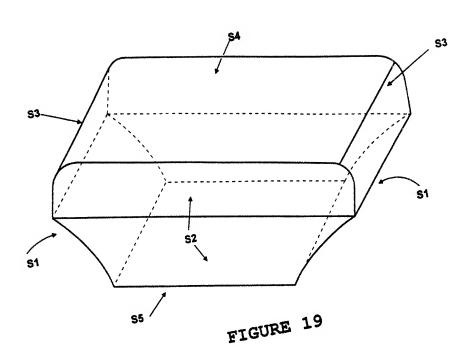
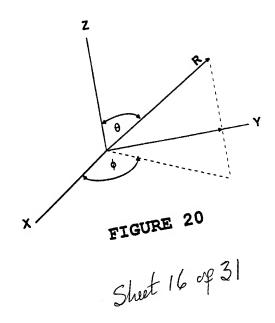


FIGURE 18

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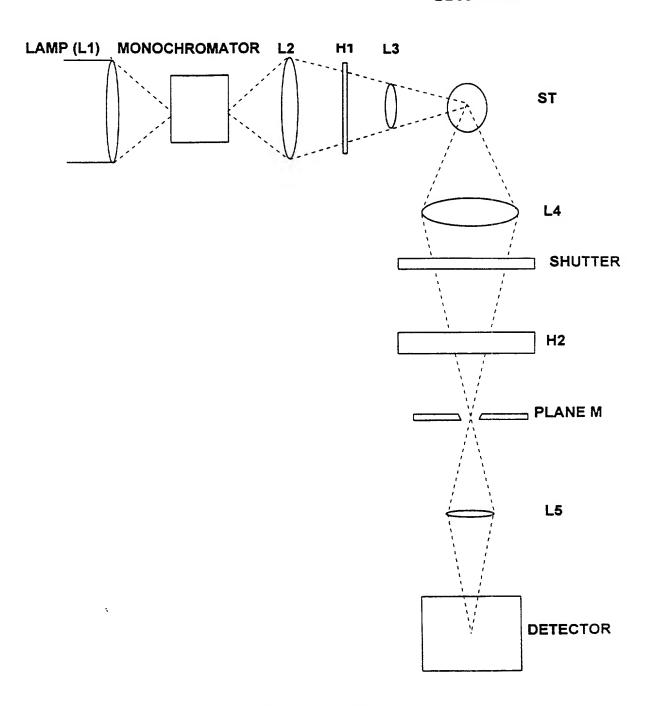
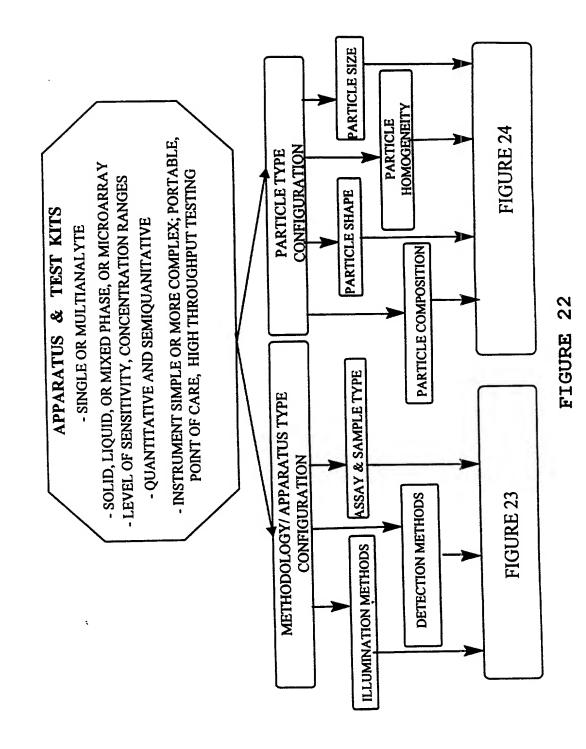
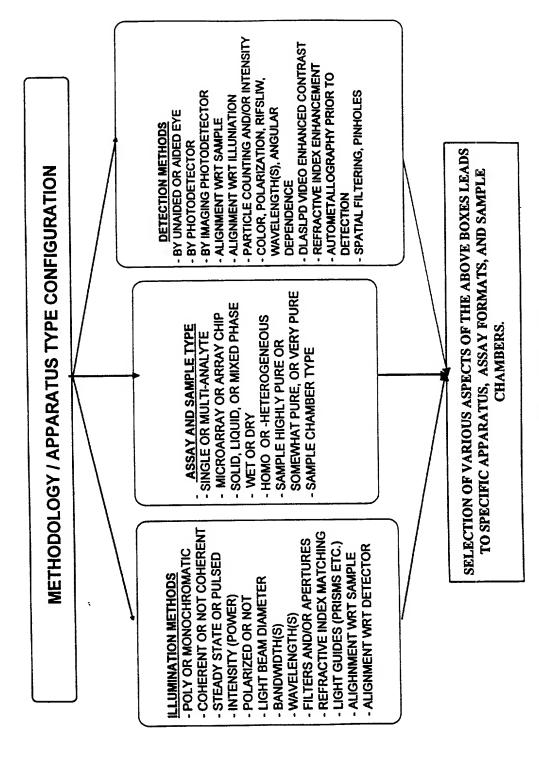


FIGURE 21

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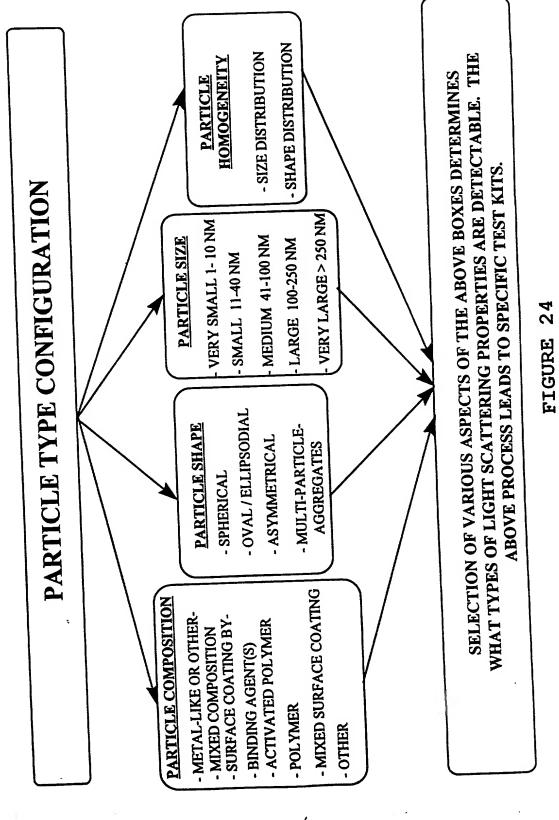
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FIGURE

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## PRACTICE OF INVENTION TO A SPECIFIC DIAGNOSTIC NEED LEADING TO SPECIFIC APPARATUS AND TEST KITS

I. ANALYTE
DETECTION
REQUIREMENTS
SPECIFIED

ANALYTE(S) DETECTION REQUIREMENTS SPECIFIED NUMBER OF DIFFERENT ANALYTES QUANTITATIVE AND/OR SEMI-QUANTITATIVE SENSITIVITY AND CONCENTRATION RANGESAMPLE TYPE AND CONDITION LIQUID, SOLID-PHASE, OR MIXED PHASE, MICRO-ARRAY PURE, SOMEWHAT PURE, NOT PURE TIME TAKEN PER COMPLETION OF ASSAY

II. APPARATUS
REQUIREMENTS
DEFINED

PORTABLE, POINT OF CARE, HIGH THROUGHPUT TESTING COST, SIZE, PORTABILITY, ROBUSTNESS, LIFECYCLE, SERVICE NEEDS, SAMPLE PROCESSING CAPABILITIES, EASE OF USE

III. SELECT
APPARATUS
COMPONENTS

DEFINED SAMPLE TYPES, SAMPLE CHAMBERS, LIGHT SOURCE, DETECTION MEANS, OPTICAL AND ELECTRICAL COMPONENTS, WAVELENGTHS

IV. SELECT
PARTICLE
TYPE(S)

SELECT PARTICLE TYPE(S) TO ACHIEVE ANALYTE DETECTION REQUIREMENTS WITH THE DEFINED APPARATUS MEANS.

APPARATUS AND TESTS KITS
(DESIRED ANALYTE DETECTION REQUIREMENTS
ACHIEVED)

FIGURE 25

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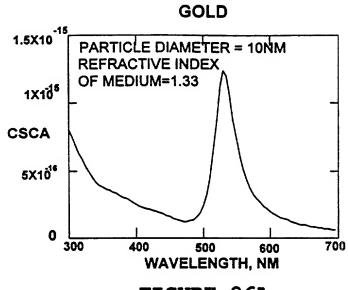


FIGURE 26A

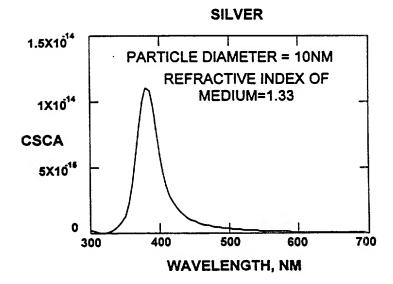
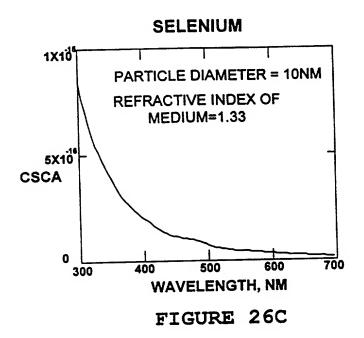


FIGURE 26B

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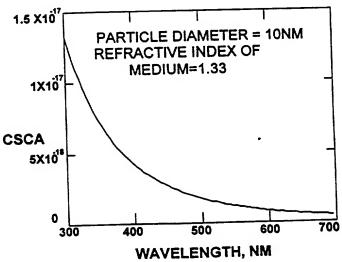
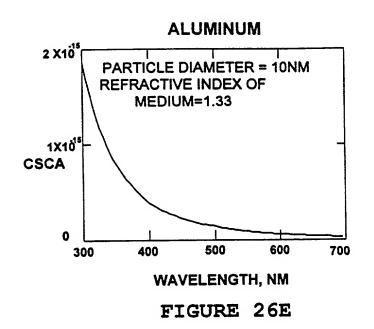


FIGURE 26D

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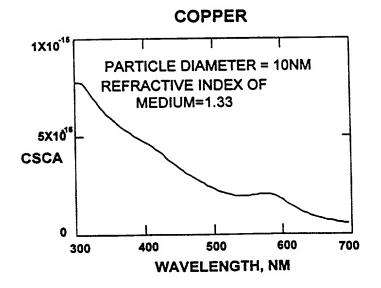
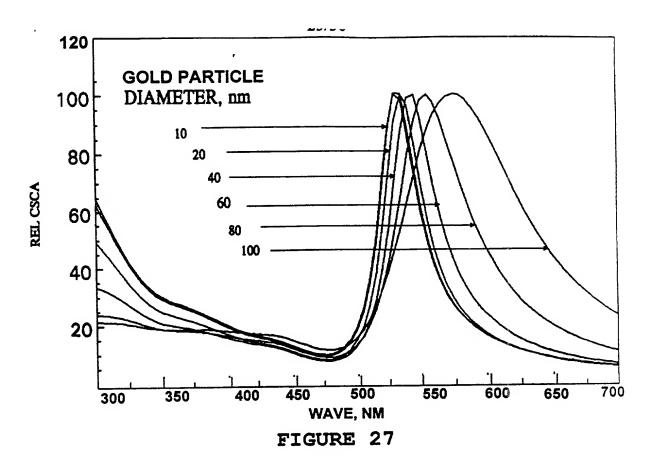
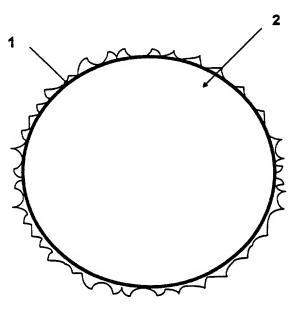


FIGURE 26F

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FIGURE 28

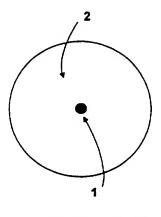


FIGURE 29A

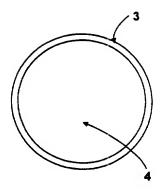


FIGURE 29B

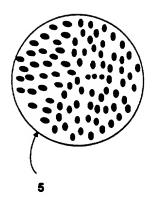


FIGURE 29C

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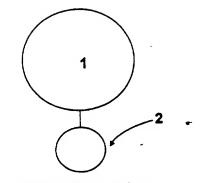


FIGURE 30A

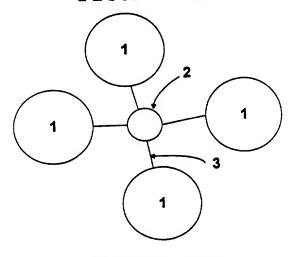


FIGURE 30B

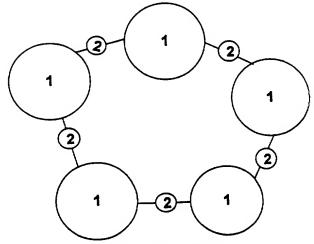


FIGURE 30C

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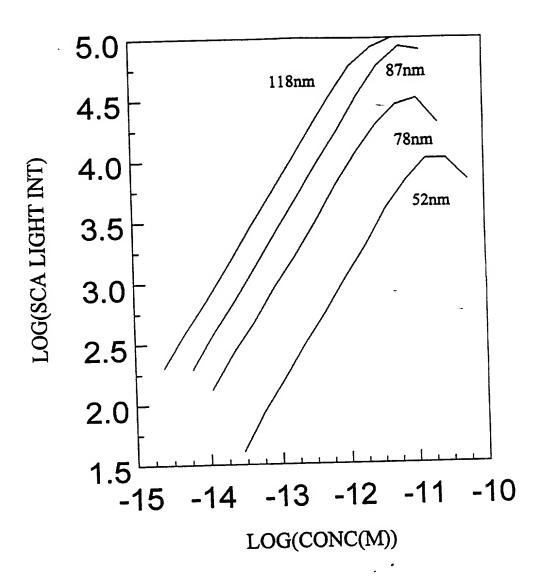


FIGURE 31

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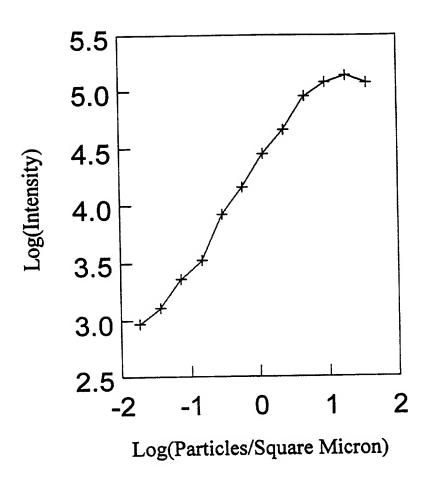
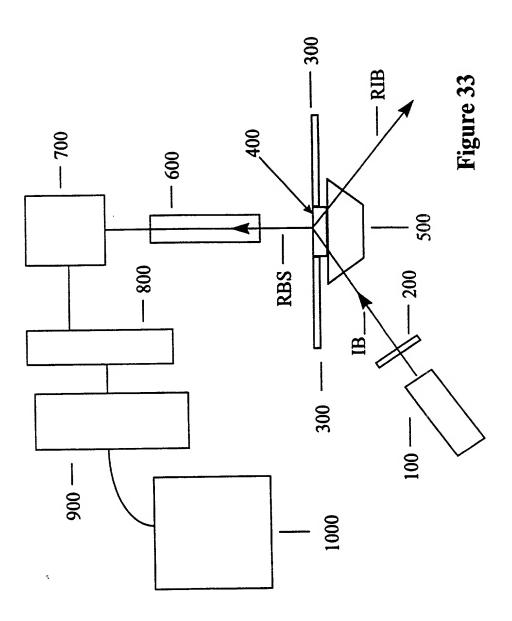


FIGURE 32

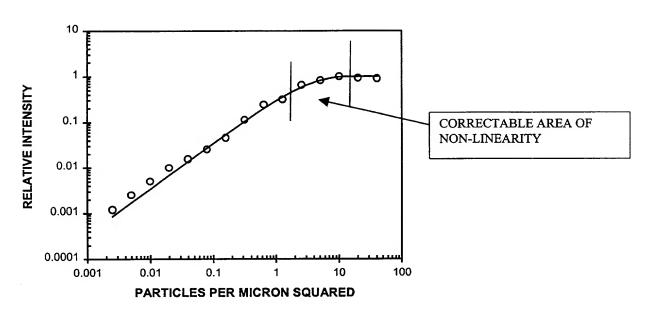
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Figure 34

## RELATIVE INTENSITY VS. PARTICLES PER MICRON SQUARED: 80 NM BARE GOLD PARTICLES (20010205)



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